

INTERNATIONAL TECHNICAL CERTIFICATE IN JETTY AND TERMINAL OPERATIONAL SAFETY (IJET)

INTRODUCTION

Safety in all types of operations is the key factor in ensuring that a company always maintains its position about the profit line, both efficiently and ethically. It is critical to the well-being and reputation of the tanker and terminal industry. In today's global oil and gas markets, terminal, offshore, tank and transport operators are faced with increasing risk constraints and challenges stemming from complex cargo and terminal operations coupled with tighter safety, security and environmental regulations.

The International technical certificate in jetty and terminal operation Safety outlines operating procedures, particularly those prompted by the introduction of the [International Safety Management \(ISM\) Code](#) and the syllabus is based on International Safety Guide for Oil Tankers and Terminals (ISGOTT) guidelines. It is a standard course on the safe operation of oil tankers and the terminals they serve.

This course covers risk and safety in oil & gas terminals, operational principles covering ship or barge receipt and delivery operations in jetties and terminals, outlining the safety, operational and key process steps relevant to these activities. It equips tanker and terminal personnel on the safe carriage and handling of crude oil and petroleum products on tankers and at terminals.

It covers material of practical value to delegates from management levels to onsite operational staff and is aimed at a wider audience of stakeholders; oil and gas operators, terminal and tank operators, off-shore and ship operators, bunker providers and agents, port and terminal authorities, safety, security and environmental agencies, intermodal transport and logistics operators, shipping agents and freight forwarders, risk and safety consultants, risk and insurance professionals and the academic world, etc . It focuses on the working relationship between ship and terminal staff and highlights the characteristics of tanker cargoes and the concerns of tanker staff especially safety whilst alongside.

DURATION: 5 Days + 2 hours exams

FEES: N250, 000 including exams, course materials and lunch

DATES: 1. 10th – 15th November

2. 13th – 17th December

TARGET AUDIENCE

This course is designed for:

- HSE officers and Supervisors
- HSE Managers and Engineers
- Oil and Gas Safety Managers
- Port and Terminal Managers
- Ship and Offshore Managers
- Storage and Tank Managers
- Ship Bunkering and Station Managers
- Terminal and Shipping Agents
- Business Continuity Managers
- Regulatory and Policy Experts
- Academic and Research Faculty
- Transport Safety and Risk Consultants
- Risk and Insurance Professionals
- Logistics and Distribution Professionals
- Shipping and Transport Managers
- Safety and Security Managers

FEES: N250, 000 including exams, course materials and lunch

LEARNING OUTCOME

In general, candidates would gain in-depth knowledge on safety operations & management of oil & gas marine terminals, recognize the international regulations & requirements for the oil & gas marine terminals

They would be able to apply proper planning techniques in storage & transfer systems and command of the

various planning and transfer requirements for oil & gas marine terminal, discuss the different vessel operations in the oil & gas marine terminal such as oil tankers (crude & product) and gas carriers (LNG / LPG)

In particular at the end of the course, candidates would be able to understand and be familiar with:

- Occupational Health and Safety management
- OHS procedures and terminal safety
- ILO convention and IMO guidelines
- ISM code and ISGOTT guidelines
- Marine Safety and risk assessment
- Safe Working Practices in the marine environment
- Ship type and familiarisation
- Port/harbor and jetty appraisal

- List core responsibilities of the jetty operator
- safe carriage and handling of crude oil and petroleum products
- Identify hazards applicable to jetty operations
- Identify key features of the jetty and Jetty equipment use
- Detail PPE including core features of life jackets
- Oil and gas markets and terminals
- Outline documentation requirements and key aspects of ship / shore safety and checklist
- Detail core responsibilities for the jetty operator relevant to discharge and loading operations
- Safe mooring management
- Emergency preparedness and contingency plans
- Quality assurance and control
- Cargo operations
- Commercial and regulatory aspects of tanker operations.

UNIT 1: SAFETY AND SECURITY MANAGEMENT

Element 1 Safety Systems and Procedures

- 1.1 Terminal safety regulations
- 1.2 ILO convention and IMO guidelines
- 1.3 ISM code and ISGOTT guidelines
- 1.4 Safety prevention and procedures
- 1.5 Safety management systems
- 1.6 Reliability systems and maintenance
- 1.7 Design for safety failures

Element 2 Site and Equipment Safety

- 2.1 Terminal risk and safety
- 2.2 Types of safety accidents
- 2.3 Equipment safety and maintenance
- 2.4 OHS procedures and site safety

Element 3: Port and Terminal Security

- 3.1 Terminal risk and security
- 3.2 ISPS code and security regulations
- 3.3 Design and validation of security plans and assessment
- 3.4 Security equipments
- 3.5 Cost and impact of terminal security

UNIT 2: SHIP FAMILIARIZATION, PORT/HARBOUR AND JETTY APPRAISAL

Element 1 Jetty Types and Equipment

- 1.1 Marine terminals and installations
- 1.2 Inland storage and tank farms
- 1.3 Terminal layout and berthing systems
- 1.2 Pipes and Valves
- 1.3 Pipe Isolation
- 1.4 Ship's Manifolds
- 1.5 Other Jetty Equipment
- 1.6 Intrinsic Safety
- 1.7 Hoses
- 1.8 Means of Access
- 1.9 Mooring
- 1.10 Hard Arm Fluid Transfer Equipment
- 1.11 The Design and Safety of Jetties and Sea Islands

Element 2 Basic Ship Information

- 2.2 Regulations affecting a modern tanker
- 2.3 Crude and Product Tankers
- 2.4 Chemical tankers
- 2.5 Liquefied Gas Carriers
- 2.6 Combination Carriers
- 2.7 Staff Onboard Ship
- 2.8 Ship Management

Element 3 Mooring

- 3.1 Mooring Forces
- 3.2 Factors Affecting Load Distribution
- 3.3 Mooring Equipment
- 3.4 Mooring System Management
- 3.5 Tugs and the safety of Tankers

Element 4 Ship Arrival Operations

- 4.1 Tanker sizes and types
- 4.2 Tanker Operations and Safety Guidance
- 4.2 Pre Arrival Information
- 4.3 Summary of safety precautions alongside berth for all tanker types
- 4.4 Ship/Shore Safety Check Lists
- 4.5 Pollution Prevention Check Lists
- 4.6 Shore Preparation for Loading
- 4.7 Vapour Emission Control
- 4.8 Disconnecting After Loading
- 4.9 Preparation for Discharge of the Ship

- 4.10 Ship/Ship Transfer Operations
- 4.11 Tank Cleaning and Gas Freeing
- 4.12 Hydrogen Sulphide (H₂S)
- 4.13 Static Electricity
- 4.14 Surge Pressures
- 4.15 Inert Gas Systems

UNIT 3 CARGO OPERATIONS AND EMERGENCY PREPAREDNESS

Element 1 Cargo Handling, Surveys and Sampling

- 1.1 Types and categories of hazardous materials
- 1.2 Cargo handling and terminal operations
- 1.3 HAZMAT cargo handling and routing
- 1.4 Cargo Surveying Procedures
- 1.5 Cargo Surveying Definitions
- 1.6 Early Departure Procedure

Element 2 Tank Cleaning

- 2.1 Timing Issues
- 2.2 Tank Cleaning Locations
- 2.3 Tank Cleaning Methods
- 2.4 Precautions

Element 3 Crude Oil Washing (COW)

- 3.1 History of Crude Oil Washing
- 3.2 Solvent Action
- 3.3 Benefits of COW
- 3.4 Typical Voyage
- 3.5 COW Ship Types
- 3.6 The Washing Operation

Element 4 Fire Fighting Facilities

- 4.1 Water Resources
- 4.2 Fire Fighting Foam and Foam Stocks
- 4.3 Auxiliary Fire Fighting Equipment
- 4.4 Dry Powder
- 4.5 Training

Element 5 Marine Environment and Pollution Prevention

- 5.1 Marine pollution types and sources
- 5.2 MARPOL and IMO regulations
- 5.3 Shipboard Oil or Pollution Emergency Plans (SOPEP)
- 5.4 Dealing with a Spill incidents and impacts

- 5.5 Spill response and mitigation
- 5.6 Clean up operations and equipment
- 5.7 Emergency and contingency planning

Element 6 Port Appraisal

- 6.1 Information
- 6.2 Regulations
- 6.3 In Port Navigation
- 6.4 Port Services

Assessment methods

- Practical Demonstration / Assignment
- Task-based controlled assessment
- Examinations based on:

Part 1: Multiple Choice Examination- 30 minutes (30 questions makes up 30% of entire exam score)- 20 Right answers (20%) to pass

Part 2: Written Examination - 2 hours (10 questions: 2 longs questions, 8 short questions – Makes up 70% of entire exam score) - 30% to pass

FOR MORE DETAILS/TRAINING ENQUIRIES & BOOKINGS



LAGOS OFFICE

9, Olaiya Street, Alausa-Ikeja, Lagos
Tel: 08095643275, 08137901991, 07059747999
Email: info@globalhseconsult.com
Website: www.globalhseconsult.com

P/HARCOURT OFFICE

2nd Floor, Rumuokoro St, (Off Aba Rd,) Rumuomasi
Tel: 08165490371, 08095604688
Email: ph@globalhseconsult.com
Website: www.globalhseconsult.com